

JINR PRIZES FOR 2018

1. Theoretical physics research

First prizes

1. "Multidimensional supersymmetric mechanics, Witten-Dijkgraaf-Verlinde-Verlinde equation and its generalization".

Authors: S. Krivonos, O. Lechtenfeld, A. Sutulin.

2. "Vortical excitations in nuclei".

Authors: J. Kvasil, W. Kleinig, V. Nesterenko, P.-G. Reinhard, A. Repko.

Second prize

"Description of low-energy meson production at colliding e^+e^- beams and in decays of tau leptons within the extended Nambu-Jona-Lasinio model".

Authors: M. Volkov, A. Arbuzov, A. Pivovarov, K. Nurlan.

II. Experimental physics research

First prizes

1. "Study of pp-chain solar neutrino properties with the Borexino detector".

Authors: A. Vishneva, O. Smirnov, A. Sotnikov.

2. "Correlation of structure and physical properties in ordered iron-based alloys".

Authors: A. Balagurov, I. Bobrikov, S. Sumnikov, I. Golovin, V. Palacheva.

Second prize

"Manifestation of the cluster structure of ^9Be nuclei in the mechanism of their interaction".

Authors: S. Lukyanov, A. Denikin, V. Maslov, M. Naumenko, Yu. Penionzhkevich, J. Mrazek, W. Trzaska, K. Mendibaev, N. Skobelev, Yu. Sobolev,

III. Physics instruments and methods

First prize

“ACCULINNA-2 project: the physics case and technical challenges”.

Authors: A. Bezbakh, L. Grigorenko, M. Golovkov, A. Gorshkov, S. Krupko, S. Sidorchuk, S. Stepanov, G. Ter-Akopian, A. Fomichev, P. Sharov.

IV. Applied physics research

First prize

“Structure and properties of aqueous solutions of C_{60} and C_{70} fullerenes for biological applications”.

Authors: E. Kyzyma, V. Petrenko, O. Ivankov, M. Avdeev, V. Aksenov, L. Bulavin, Yu. Prylutsky.

Second prize

“Determination of the elemental content of Moldavian wines and soils by neutron activation analysis”.

Authors: I. Zinicovscaia, O. Culicov, M. Frontasyeva, S. Gundorina, O. Dului, R. Sturza.

Encouraging prizes

1. “Symmetry effects in quantum dots”.

Authors: R. Nazmitdinov, M. Dineykh, N. Simonović, A. Puente.

2. “Study of the structure of a proton in hard p-p processes of production of prompt photons or vector bosons accompanied by heavy jets”.

Authors: V. Bednyakov, S. Brodsky, G. Lykasov, A. Lipatov, J. Smiesko, S. Tokar.

3. “Discovery and prospects of investigation of transitional dynamics in three-body decays of exotic nuclei”.

Authors: T. Golubkova, L. Grigorenko, M. Zhukov, P. Sharov.

4. "Position-sensitive twin ionization chamber for nuclear fission investigations".

Authors: Sh. Zeynalov, P. Sedyshev, O. Sidorova, V. Shvetsov, L. Svetov.